

RG 104, 8NS-104-94-077

Box 6

**8NS-104-94-077, Miscellaneous
Correspondence & Memos, 1897-1994**

U.S. #1 - New - Small



OFFICE OF
DIRECTOR OF THE MINT

THE DEPARTMENT OF THE TREASURY

WASHINGTON, D.C. 20220

January 13, 1978

RECEIVED

JAN 10 1978

OFFICE OF
SUPERINTENDENT

U. S. MINT AT DENVER

✓ Superintendent, U.S. Mint, Philadelphia, PA 19106
✓ Superintendent, U.S. Mint, Denver, CO 80204

In anticipation of enactment of legislation approving the new, smaller one-dollar coin, it is desirable that we proceed immediately on the fabrication of long-lead production tooling so that production can be started without delay. It is therefore requested that you proceed on this project as further outlined in this letter.

Specifications on the new, one-dollar coin on which tooling is to be based are as follows:

Alloy:	Cu-Ni/Copper Clad
Coin Edge:	Reeded (133 Reeds)
Coin Diameter:	26.50 MM
Coin Edge Thickness:	2.13 MM
Upset Blank Diameter:	26.01 MM
Upset Edge Thickness:	2.06 MM
Cut Blank Diameter:	26.50 MM
Cut Blank Gage:	1.74 MM
Weight:	8.50 grams

Tooling needs are to be planned on the basis of the Philadelphia and Denver Mint's each having capability to produce 250,000,000 coins within the first 132 production days = 1.894 million/day. Follow-on production is expected to be at the daily rate of 540,000 per day. For the initial 250 million piece production, it is expected the following tooling at indicated shift basis will be required at each facility. Quantities of tooling are subject to your verification.

<u>Tooling</u>	<u>Shift Basis</u>	<u>Estimated Cost</u>		
		<u>In-House</u>	<u>Purchase</u>	<u>Total</u>
2 Blanking Die Sets (Steel)	3/8/5	\$7,200	\$ 4,300	\$11,500
2 Disc/segment grooves for 2 upset mills	2/8/5	\$3,360	900	\$4,260
2 Sets over/under Riddle Screens	2/8/5	0	\$2,400	\$2,400

orig: Eliz. M. M. Div.
copy: Acc. Div.
Housing Div.

cc: WES
Copy
Jord
Blanking
Upsetting
Pressrooms
01-18-78

Keep Freedom in Your Future With U.S. Savings Bonds

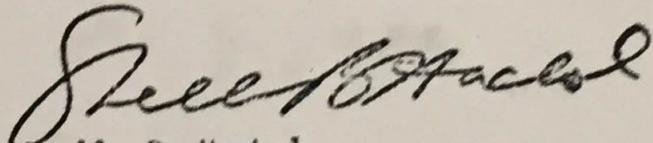
<u>Tooling</u>	<u>Shift Basis</u>	<u>Estimated Cost</u>		
		<u>In-House</u>	<u>Purchase</u>	<u>Total</u>
8 sets, two (2) out, Coin Press tooling Including feeder bowl Inserts, tracks, feeder tubes, and fingers for 8 quad. presses	3/8/5	\$9,500 \$20,060	500 \$8,100	\$10,000 \$28,160

NOTE: Est. costs are based upon Philadelphia Mint estimates.

It is requested the PHILADELPHIA and DENVER MINTS initiate action immediately to acquire production tooling for the new one-dollar coin as identified above. Tooling is expected to be available within four (4) months from go ahead.

It is also requested that the PHILADELPHIA MINT proceed on the in-house fabrication of four (4) sets of templates needed for die manufacturing and two (2) reeding tools for collars at an estimated cost of \$1,700.

Sincerely,



Stella B. Hackel
Director of the Mint

cc:
F.H. MacDonald

UNITED STATES GOVERNMENT

Memorandum RECEIVED

TO : J. P. Justice

FROM : G. G. Ambrose

JUL 10 1978

DATE: JUL 6 1978

Reply to Attn of: M-P

OFFICE OF
SUPERINTENDENT

U. S. MINT AT DENVER

SUBJECT: New One-Dollar Strip Solicitation for the SFAO, Denver and Philadelphia Mints

Once legislation on the new one-dollar coin is enacted, our starting production will become imminently important. For this reason, we are transmitting herewith our technical specifications for procurement of the new one-dollar strip for each of the three (3) facilities: SFAO, Denver Mint, and Philadelphia Mint.

The specifications are complete with the exception of the total quantity, weekly delivery rate, starting delivery date, and the provisions for delivery of copper and nickel to the contractor after award. The first three (3) sheets of the specifications contain blank spaces for entering requirements as defined above, upon final decision on the program.

It is requested you proceed to prepare the total solicitation packages for the above three (3) procurements and go as far as having the packages reproduced for mailing, except for the cover sheet and above referenced three (3) sheets. In this way we can complete the needed information on the appropriate four (4) sheets, xerox same, and have the package in the mail within a minimum time.

Your cooperation on this matter is appreciated.

Enclosures (3)

cc: A.J. Goldman
Supt. Phila. Mint
Supt. Denver Mint
OIC - SFAO
G.D. Dawson
G.G. Ambrose

orig: Compt. Div.
copy: Act. Div.

Cash Div.

cc: M. Hardin
C. Blaser
Coord 7/17/78

Note:

Increased thickness of clad layers produce a product which is 12.5% Nickel - not $8\frac{1}{3}\%$ as other laminated strip.

This scrap will have to be segregated from other clad material.



Denver Mint
New Dollar Strip

I. Affirmative Action Programs

Item 6, "Equal Opportunity," on page 2 of S.F. 33 is supplemented as follows:

The bidder (or offeror) represents that () he has developed and has on file () has not developed and does not have on file at each establishment affirmative action programs as required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (2) he () has not previously had contracts subject to the written affirmative action program requirement of the rules and regulations of the Secretary of Labor.

II. Scope

The processing, fabrication and delivery of _____ lbs. of One-Dollar Cupro-Nickel/Copper Clad coinage strip to the U. S. Mint, Denver, Colorado, at a rate of _____ lbs/week during a _____ week period.

III. Schedule

(1) One (1) dollar cupro-nickel copper clad coinage strip. All blanking scrap to be returned to the Contractor in particle form. Deliveries

to commence during the week of _____, 197____ and continue
to completion at the rate of _____ lbs/week.

Bids offering delivery of a quantity under such terms or conditions
that delivery will not clearly fall within the specific delivery period
will be considered nonresponsive and will be rejected.

Prices must be firm and on a per pound basis, F.O.B., the designated
Mint facility.

Coinage strip will be received from the Contractor at the designated
delivery point Monday through Friday, except holidays, at the weekly rate
stipulated in the schedule. Daily delivery shall not exceed four (4)
truckloads, or approximately 160,000 pounds on any one day.

Bidders are required to furnish street address, city, state and zip
code on point of production. Deviation therefrom after contract award
is precluded unless approved in writing by the Contracting Officer.

IV.

Government Furnished Material

The Government will provide virgin metal as follows:

- (1) Copper (75% x 87.50%) of the total quantity of coinage strip.

Specifications: Electrolytic Copper Cathodes ASTM B115-72.

(2) Nickel ($75\% \times 12.50\%$) of the total quantity of coinage strip.

Specifications: Electrolytic Cathodes or briquettes ASTM B39-75.

Delivery of the above furnished copper and nickel to Contractor's plant (or to an alternate destination should the Contractor so desire, provided no additional cost to the Government is incurred) will commence within _____ days after award of contract.

V. Return of Scrap

Twenty-five percent (25%) of the total weight of the strip received under this contract will be returned to the Contractor in the form of blanking scrap. Arrangements for the cost of the return of scrap will be the responsibility of the Contractor. The Contractor shall take into consideration the metal content of scrap returned in quoting his bid price under this solicitation. Mint-owned containers having 3,600 pounds scrap capacity will be ~~and~~ loaded onto Contractor's designated truck (vehicle) at the Mint site for removal to a local staging area for emptying and return of same to the Mint. Size of scrap is approximately $1/8'' \times 3/8'' \times$ strip gage.

i: Final accountability for Government-owned metal for use in delivery of clad coinage strip per this contract shall be predicated on the nominal overall composition of 87.50% copper and 12.50% nickel. The Contractor shall assure an adequate amount of copper and nickel is retained in his possession to fully reconcile the final accounting of metal on this contract.

All metal required for processing losses or waste incurred by the Contractor shall be provided by the Contractor at no cost to the Mint.

VI.

Material Specifications on Cladded Coinage Strip

(a) Strip shall be a composite three-layer material; copper core with two exterior layers of cupro-nickel, metallurgically bonded to the core without the introduction of a catalyst or foreign materials. The strip shall be of the following gage, suitable for the manufacturing of cladded coins:

<u>DENOMINATION</u>	<u>METRIC INDIVIDUAL CLADDING THICKNESS - mm</u>	<u>METRIC NOMINAL CORE THICKNESS - mm</u>
Item 1 - \$1	0.4125 ± 0.025 ($0.0163 \pm 0.0010"$ ref.)	0.825 ($0.0325"$)
<u>DENOMINATION</u>	<u>METRIC TOTAL STRIP THICKNESS - mm</u>	
Item 1 - \$1	1.650 ± 0.038 ($0.065 \pm 0.0015"$ ref.)	

(b) The nickel content of the overall three-layer composite strip shall be:

For each delivery order, 12.50% nickel with permissible variation of $\pm 0.25\%$.

For any one coil, 12.50% nickel with permissible variation of $\pm 0.60\%$. Manganese 0.20% maximum; zinc, 0.25% maximum; lead, 0.02% maximum; carbon, .015% maximum; balance copper.

Certified assay reports on each shipment shall be forwarded to the Mint by the Contractor.

- (c) Cladding material shall have a nominal composition of 75% copper and 25% nickel.
- (d) Core material shall be pure copper, with maximum allowable oxygen content of 0.04%.

(e) Hardness of finished strip as delivered to the Mint shall be hard temper, 85-92 Rockwell 15-T scale, tested in accordance with ASTM-E 18. Material shall be suitable for blanking by the Mint without cupping, smearing or dragging of the edges.

(f) The coinage strip shall be of uniform high quality and free of such defects as slivers, seams, cracks, dents, blisters, and bent or damaged edges. Surface shall be clean and smooth, free of roll marks, delaminations, tarnish, or rolled-in or baked-on oxide, dirt, or oils. A light film of residual sulphur-free oil is permissible. All edges shall be fully trimmed.

(g) The as-received clad material shall be metallurgically bonded throughout, and cupro-nickel cladding must not separate from the copper core upon samples of the composite being subjected to a 90 degree bend on 1/64" radius and subsequent straightening. It is recognized that due to the stiffness of this cladding gage, failure of samples from a small portion of such coils might be tolerated if no separation is observed on blanks produced from coils whose initial sample fails the bend test following a typical blank softening treatment which consists of annealing in a reducing atmosphere of 770° C for 23 minutes.

(h) Samples, approximately 20mm x 150mm, taken from as-received coils shall be subjected to a blistering test as follows: Samples shall be placed in a laboratory furnace at 705° C with atmosphere at 5% hydrogen and 95% nitrogen for a period of ten minutes. Upon removal of samples and cooling in air, the appearance of a blister exceeding 5.0 mm in any dimension constitutes a failure of the test.

(i) Annealed blanks shall have the necessary ductility to withstand a 180 degree bend and subsequent flattening with no evidence of cracks on the bend. Strip furnished must pass 100% density test as cast and rolled.

(j) Planchets will be cut from the full-hard strip by means of high speed blanking presses, introduced into rotary annealing furnaces and annealed in a reducing atmosphere at a temperature range of 590° to 790° C. Annealed blanks will be subjected to mild abrasives and soap for cleaning, rinsed and air dried. The blanks will then be compressed whereby the peripheral area is preformed to increase the edge thickness. The composite metal planchet must not cup, blister, or separate into component layers and must remain metallurgically sound throughout when subjected to the above operations.

(k) Sample planchets from each coil will be subjected to the standard accept-reject test for strip to determine that the effective resistivity-density product is such that the samples are acceptable to automatic merchandising coin accepting equipment. The "Coin Travel Test", to which sample blanks will be subjected, measures the time to the nearest 0.00

second required for the sample to travel a specific distance down an inclined track through a magnetic field. Blanks for testing will be selected to approximately represent overall conditions of the coil. Coils from which samples are tested are required to pass this test at 100% rate. The following requirements are established:

<u>Denomination</u>	<u>Standard Coin Date</u>	<u>Time (Sec.)</u>	<u>Travel Time for Blank (Sec.)</u>	
			<u>Minimum</u>	<u>Maximum</u>
Quarter dollar	1964	1.65 (no insert rail)	1.30	1.70

Coinage strip delivered to the U.S. Mint under this contract and subsequently determined to be out of specifications in gage, metallurgy, strip quality, strip width, coil weight, etcetera, will be returned to the Contractor's plant for reprocessing, all at the Contractor's expense.

VII. Coil Specifications

Strip Width: 1 dollar $12 \frac{1}{16} \pm \frac{1}{32}$ "

Coil I.D. (max.) 20"
Coil I.D. (min.) 18"
Coil Wt. (max.) 7,000 lbs.
Coil Wt. (min.) 1,100 lbs.

Coils shall be in one piece and shall be tightly blocker wound. No welds allowed.

VIII. Packaging Specifications

Coils shall be packaged with centerline axis vertical, two coils per skid where weight of total skid does not exceed 7,000 pounds. Edge of coils shall be protected by use of a 1" spacer between coils. Rails on skids shall provide 4" clearance to floor. Design of skid shall be such that they can be stacked four high under loaded conditions.

Minimum clearance - skid to floor	4"
Minimum clearance between skids	21"
Maximum container length	52"
Maximum weight skid + Coils	7,250 pounds

Coils shall be suitably packaged and banded to preclude telescoping in transit. Each coil shall have two circumferential bands and one radial band, and shall be strapped to skid with one band. A 1/2" wooden spacer block shall be inserted at the circumferential band under the end of the tail on the coil for ease of sampling. Each package shall be individually shrouded in moisture proof paper or 4 mil. plastic and be clearly marked to show:

Supplier's name
Material designation
Strip gage width
Lot number, Net weight
Contract Number

Tare weight of skids to be indicated thereon.

Delivery of strip shall be by end-loaded trucks only.

The Contractor shall provide three copies of certified reports with each shipment containing the following information: Material designation, load or lot number, Contractor's name, contract number, net weight, and results of hardness test, "Coin Travel Test", and dimensional measurements.

IX.

Contact for Contract Administration

In the event your firm receives a contract as a result of this

solicitation, please designate below the person whom the Government may contact during the period of the contract for prompt action on matters pertaining to your administration of the contract.

Name: _____

Title: _____

Address: _____

Telephone (and extension no.) _____

X.

Production Progress Report

The Contractor shall prepare and submit a weekly Production Progress Report within three working days after each weekly reporting period starting the end of the first full month after the delivery order date. Reports shall be furnished until production has been completed, and all contractual obligations met and reported. This weekly report shall include the following information as a minimum:

1. Contract Number and Delivery Order Number

2. Strip denomination

3. Contract delivery rate

4. Quantity shipped during report period

5. Cumulative quantity shipped to date

Any delay or anticipated delay in the scheduled delivery or completion of any delivery order shall be promptly reported by the Contractor to the Contracting Officer as soon as known or anticipated. Any delay or anticipated delay reported shall be accompanied by the Contractor's proposed recovery plan or rescheduled delivery date(s) with an explanation of the reason for the delay.

The proposed recovery plan or rescheduled delivery completion date(s) submittal shall not be presumed to be accepted by the Mint as clearing the delinquency or anticipated delinquency without formal acceptance from the Contracting Officer.

Report distribution shall be as follows:

2 Copies to: Department of the Treasury
Bureau of the Mint
501 13th Street, NW
Washington, DC 20220
Attention: J. P. Justice, Chief, Procurement
Division

1 Copy to: Department of the Treasury
Bureau of the Mint
501 13th Street, NW
Washington, DC 20220
Attention: G. G. Ambrose, Assistant Director
for Production

XII. CONTRACTOR SUBMITTAL OF CONFIRMATION OF METAL FORM 603X

The Contractor shall submit to the Contracting Officer within thirty (30) days from date of final delivery, two (2) U.S. Mint Forms 603X, Confirmation of Metal Accountability, attached herewith,

complete with the Contractor's figures for outstanding metal balances under the contract and signed by the Contractor's authorized representative. Upon reconciliation with Mint records, outstanding metal balances will be adjusted by appropriate contract modification. Failure to agree on any such adjustment shall be a dispute concerning a question of fact within the meaning of General Provision No. 12 entitled "Disputes".

New #1

1-17-78

15.5

8.5 Grams.

775

1240

wt. 131.75 Grains

26.50 mm.

.1044 in.

Dia. .0685 = 1.74 mm

1/2 - 11 in

.1198 Blank.

.1044

.154 = 5/32

1/2 = 11.5 grams

177.47 grains

U.S. #1 - New - Small

